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REMARKS

Claims 158-199 are pending herein. Claim 158 has been amended to define the discontinuous nature of the adhesive used to bond the layers. Support for this amendment comes from the specification as filed, e.g., at paragraph no. [0009], particularly at line 7 thereof, as well as paragraph nos. [0136], [0137], [0144], [0149], and paragraph nos. [0170] - [0172]. No new matter has been added by virtue of this amendment.

Claims 158, 169, 178, 179, and 193 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 59 of copending Application No. 10/088,576. This rejection is respectfully traversed.

Claim 59 of Application No. 10/088,576 (according to PAIR - scheduled to issue on 10/19/2004) reads as follows:

59. A laminated non-woven fabric formed in the apparatus of claim 29, said laminated fabric comprising:
a first non-woven layer and a second non-woven layer laminated to one another to form a laminated composite fabric;
said first non-woven layer having yarns aligned in the machine direction;
said second non-woven layer having yarns aligned substantially perpendicular to the machine direction;
said laminated composite fabric further including a film of adhesive disposed between the first and second non-woven layers.

Applicant does not understand this rejection, and the undersigned would appreciate the opportunity to discuss the same in an Interview with the Examiner. An Interview Request Form is attached.

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Claim 59 of the '576 Application is clearly directed to a laminated non-woven fabric, made in the unique pressure laminator of the cited application. This claim was allowed because the claimed laminated non-woven fabric, as made in the pressure laminator disclosed therein, has special characteristics. See, for example the paragraph bridging pages 2-3, the second paragraph on page 4, and the first paragraph on page 6, reproduced below:

In preferred embodiments, the substrates are at least two non-woven fabric substrates, one of the fabric substrate representing the weft strands and another representing the warp strands. The adhesive used to bond the non-woven substrates should be activated by heat during the lamination process. The combination of pressure, heating to activate the adhesive and rapid cooling of the joined substrates minimizes shrinkage and sets the yarn size in the final non-woven fabric laminate. In addition, because the laminate is being formed under pressure, the warp and weft yarns are forced into intimate contact, giving the final laminate the appearance of a woven product.

In an especially preferred embodiment, the plurality of heating and cooling bars located in the lower section of the pressure box are rigidly mounted, whereas the plurality of heating and cooling bars in the upper section of the pressure box are mounted so as to float on top of the materials being laminated. This arrangement has been found to be especially useful in the preparation of non-woven fabrics. Shrinkage is minimized or eliminated and the final laminate has the physical characteristics (feel and appearance) of a thermomechanically finished fabric.

This invention is also directed to a method of manufacturing non-woven fabrics using the pressure lamination apparatus, and to the non-woven fabrics formed thereby. The pressure laminator of the present invention has been specifically designed to permit the permanent joining of at least two non-woven fabric substrates with an adhesive between the fabric substrates, with little or no shrinkage occurring, during the lamination process. While not wishing to be bound by theory, it is believed that shrinkage is prevented or limited herein, due to the high pressure on the belts, which prevents the laminate from slipping, thereby preventing or limiting shrinkage. The resulting non-woven composite fabric advantageously has the appearance of a woven fabric, but has superior strength characteristics there over.

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As described in the '576 Application, the use of the laminator to form the laminated non-woven fabric from two non-woven substrates and an adhesive film, permanently joins the substrates with little or no shrinkage and the laminated non-woven fabric has the feel and appearance of a woven fabric. The '576 Application also discloses another clear difference between a "pressure laminated" fabric product and a fabric product that is not pressure laminated, namely the teaching from the first paragraph on page 5:

When two or more non-woven polyester substrates (e.g., at least one warp substrate and at least one weft substrate) are laminated in this apparatus, the thickness of the laminate at the outlet end of the laminator is at least 5%, preferably at least 10% and most preferably at least about 20% less than the combined thickness of the substrates and thermoplastic adhesive, as measured at the inlet end of the laminator.

Accordingly, as described in the '576 Application, the laminated non-woven fabric has a thickness at least 5% less than the combined thicknesses of the two non-woven substrates and the adhesive film entering the pressure laminator.

At best, the laminated non-woven fabric claimed in the '576 Application is a species of the non-woven fabric genus claimed in this application. The laminated non-woven fabric claimed in the '576 Application clearly differs from the non-woven fabric claimed in this application, for the reasons given above – each of which is mandated because the laminated fabric was made using the unique pressure laminator of the '576 Application.

Nowhere in the Office Action is there cited any prior art reference which suggests laminating a non-woven fabric as claimed in the present application with the unique pressure laminator of the '576 Application. Nor is there any explanation in the Office

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Action as to how or why one skilled in the art would have been led by the prior art to laminate the non-woven fabric of this application with the unique pressure laminator of the '576 Application.

Finally, the Examiner has not applied the requisite two-way test for determining obviousness-type double patenting. The '576 Application was the U.S. National Phase filing of PCT/US00/25680, filed 20 September 2000. The present application is the U.S. National Phase filing of PCT/US00/00571, filed 10 January 2000.

When making a two-way obviousness determination it is necessary to apply the Graham obviousness analysis twice, once with the application claims as the claims in issue, and once with the patent claims as the claims in issue. Where a two-way obviousness determination is required, an obvious-type double patenting rejection is appropriate only where both analyses compel a conclusion that the invention defined in the claims in issue is an obvious variation of the invention defined in a claim in the other application/patent.

Thus, unless the claimed invention in the present application would have been obvious from the subject matter of the claims in the '576 Application, and the '576 claims would have been obvious over the claims of the present invention, the double patenting rejection is improper.

Employing such a two-way analysis, there is nothing in the present application that either teaches or suggests the '576 Application claimed fabric – which requires pressure lamination. Likewise, nothing in the claims of the '576 Application teaches or suggests the fabric claimed herein.

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The rule against "obviousness-type double patenting is designed to prevent the unwarranted extension of patent rights by obtaining claims in a second patent on an "obvious" modification of the same invention that is covered by the prior patent. This rule requires that the claims in the second application or patent must not be patentably distinct from the claims of the first application or patent. In the present case, the fabric formed as described in the specification, is completely distinct from the laminated fabric taught in the '576 Application.

Reconsideration and withdrawal of the obviousness-type double patenting rejection of Claims 158, 169, 178, 179, and 193 is respectfully requested.

Claims 158 -199 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9 -16 of copending Application No. 10/088,613. This rejection is respectfully traversed, in as much as due to the response to a restriction requirement issued in that application, these claims stand withdrawn from further consideration in the '613 Application.

Claims 9-16 of the '613 Application read as follows:

9. (Withdrawn) A non-woven fabric comprised of one layer of warp yarns and a second layer of substantially perpendicular weft yarns, the density of at least one of said warp yarns and weft yarns in the fabric being in the range of 40-140 yarns per inch.
10. (Withdrawn) The fabric of claim 9, wherein the density of both said warp yarns and weft yarns in the fabric is in the range of 40-140 yarns per inch.
11. (Withdrawn) The fabric of claim 9 or 10, wherein the denier of said warp and weft yarns is different.
12. (Withdrawn) The fabric of claim 9 or 10, wherein the denier of

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said warp and weft yarns is the same.

13. (Withdrawn) A non-woven sail cloth fabric comprised of a layer of warp yarns and a layer of substantially perpendicular weft yarns adhesively secured together, said adhesive constituting 5-20% of the weight of the non-woven fabric.

14. (Withdrawn) The sail cloth fabric of claim 13, wherein the density of at least one of said warp yarns and said weft yarns in the fabric is in the range of 40-100 yarns per inch.

15. (Withdrawn) The sail cloth fabric of claim 14, wherein the density of both said warp yarns and weft yarns in the fabric is in the range of 40-100 yarns per inch.

16. (Withdrawn) The sail cloth fabric of claims 13, 14, or 15, wherein the denier of said warp and weft yarns is different.

However, had the subject claims still been pending in the '613 Application, which was the U.S. National Phase filing of PCT/US00/25793, filed 20 September 2000, the above-discussed two-way test for obviousness-type double patenting would need to be applied, and Applicant submits that the test would fail, for the same reasons discussed above.

Claims 158 - 160, 164 -166, 169 -173, 178 -180, 186, 187, 188, and 192 -199 are rejected under 35 U.S.C. 102(b) as being anticipated by Hartstein (3,591,434). This rejection is respectfully traversed for the following reasons:

As defined in the amended claims, the non-woven fabric of the present invention consists of parallel yarns running in the warp and weft directions, supported and bonded together by a random and uneven, non-continuous - adhesive coating. This coating is described as forming "bridges" in the specification (see, e.g., page 5). In contrast thereto, the yarns of the Hartstein patent do not have this feature. Hartstein teaches and describes

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a discrete and continuous film which serves as the layer of adhesive material, as follows:
Col. 2, lines 43-51 (see also Figure 7):

A self-supporting, discrete thermoplastic film, which may be ethylene acrylic acid copolymer film (for example, Dow Chemical P.Z. 4,333.9 Experimental Film) of a thickness of one-half to one mil, is unwound from a spool and passed between rolls 4 and 5, where it is joined or bonded to a plurality of parallel yarns that are spaced in accordance with the desired fabric density, as the film is conveyed between rolls 5 and 6.

It is axiomatic that for a cited document to constitute an anticipation, all of the material elements of a claim must be found in the cited document. See for example, *In re Marshall*, 577 F.2d 301, 198 USPQ 344 (CCPA 1978); and *In re Kalm*, 378 F.2d 959, 154 USPQ 10 (CCPA 1967).

Clearly Hartstein teaches, discloses and/or suggests only the use of a "structurally intact" thermoplastic film for adhering parallel weft yarns to parallel warp yarns. The rejection of Claims 158 - 160, 164 -166, 169 -173, 178 -180, 186, 187, 188, and 192 -199 under 35 U.S.C. 102(b) as being anticipated by Hartstein, must be withdrawn. Such action is respectfully requested.

Claims 161-163, 174 -177, and 181-185 are rejected under 35 U.S.C. 103(a) as obvious over Hartstein. This rejection is likewise respectfully traversed, for the same reasons set forth above.

Hartstein teaches, discloses and/or suggests only the use of a "structurally intact" thermoplastic film for adhering parallel weft yarns to parallel warp yarns. Nowhere is there any suggestion or motivation from the cited art to modify this teaching to the presently claimed use of an adhesive that is substantially located only between the first

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and second layers and is discontinuous. The rejection of Claims 161-163, 174 -177, and 181-185 under 35 U.S.C. 103(a) as obvious over Hartstein, must be withdrawn. Such action is respectfully requested.

Claims 168, 190, and 191 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartstein in view of Pittman. This rejection is likewise respectfully traversed, for the same reasons set forth above. These dependent claims include the modification of Claim 158, which clearly distinguishes the present invention from the cited art.

Hartstein teaches, discloses and/or suggests only the use of a "structurally intact" thermoplastic film for adhering parallel weft yarns to parallel warp yarns. Nowhere is there any suggestion or motivation from the cited art to modify this teaching to the presently claimed use of an adhesive that is substantially located only between the first and second layers and is discontinuous.

The additional citation of Pittman does not change this analysis. Pittman discloses yet another even or continuous distribution of adhesive for bonding nonwoven warp and weft yarns, namely by use of an emulsion or solution of adhesive to the yarn structure. As taught at Col. 3, lines 2-7 (emphasis added):

The application of the adhesive can be accomplished by dipping the yarn or fabric in an emulsion or solution of the adhesive, preferably an aqueous emulsion of the adhesive, and thereafter squeezing the yarn or fabric to remove excess liquid and evenly distribute the adhesive on the yarn or fabric.

Nowhere in Pittman is there any suggestion or motivation from the cited art to modify this teaching to the presently claimed use of an adhesive that is substantially located only between the first and second layers and is discontinuous.

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The rejection of Claims 168, 190, and 191 under 35 U.S.C. 103(a) as being unpatentable over Hartstein in view of Pittman, must be withdrawn. Such action is respectfully requested.

Claims 167 and 189 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartstein. This rejection is likewise respectfully traversed, for the same reasons set forth above. These dependent claims include the modification of Claim 158, which clearly distinguishes the present invention from the cited art.

Hartstein teaches, discloses and/or suggests only the use of a "structurally intact" thermoplastic film for adhering parallel weft yarns to parallel warp yarns. Nowhere is there any suggestion or motivation from the cited art to modify this teaching to the presently claimed use of an adhesive that is substantially located only between the first and second layers and is discontinuous. The rejection of Claims 167 and 189 under 35 U.S.C. 103(a) as obvious over Hartstein, must be withdrawn. Such action is respectfully requested.

Entry of the present amendment for purposes of appeal is respectfully requested. Entry is necessary because Applicant believes that the amended claims are now in condition for allowance notwithstanding the cited art and the Examiner's arguments thereunder.

The present amendments were not submitted at an earlier date as the Examiner's rejections were believed to have been fully met by the amendments and remarks made in the response to the last Office Action. Thus, this response represents the Applicant's only opportunity to make the present amendments and remarks a part of the record in this application.

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Entry is finally believed proper at this time because the amendments do not raise any new issues that would require further consideration and/or search, since they merely conform in scope to the claims already adequately and properly searched by the Examiner and they do not introduce any new matter.

NOTICE OF APPEAL

Applicant hereby appeals to the Board of Patent Appeals and Interferences from the last decision of the Examiner in this application.

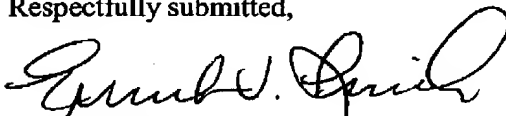
FEE AUTHORIZATION

Please charge all fees due in connection with this filing to our Deposit Account – No. 19-0733.

CERTIFICATE OF FACSIMILE TRANSMISSION

The undersigned hereby certifies that this correspondence was submitted by facsimile in the USPTO on the date shown on Page 1.

Respectfully submitted,



Ernest V. Linek (29,822)
Attorney for Applicant

Document No. 102244

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Applicant Initiated Interview Request Form

Application No.: 09/869,941 First Named Applicant: COLSON
Examiner: BEFUMD Art Unit: 1771 Status of Application: NOTICE OF APPEAL FILED

Tentative Participants:

(1) ERNEST V. LINEK (2) EX. BEFUMD
(3) _____ (4) _____

Proposed Date of Interview: 10/15/2004 Proposed Time: 10 (AM/PM)

Type of Interview Requested:

(1) ☒ Telephonic (2) ☐ Personal (3) ☐ Video Conference

Exhibit To Be Shown or Demonstrated: ☐ YES ☒ NO

If yes, provide brief description: _____

Issues To Be Discussed

Issues (Rej., Obj., etc)	Claims/ Fig. #s	Prior Art	Discussed	Agreed	Not Agreed
(1) _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(3) _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(4) _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Continuation Sheet Attached					

Brief Description of Arguments to be Presented: DISCUSS PROVISIONAL DOUBLE
PATENTING REJECTIONS AND PRIOR ART.

An interview was conducted on the above-identified application on _____.

NOTE: This form should be completed by applicant and submitted to the examiner in advance of the interview (see MPEP § 713.01).

This application will not be delayed from issue because of applicant's failure to submit a written record of this interview. Therefore, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible.

Ernest V. Linek
Applicant/Applicant's Representative Signature

Examiner/SPE Signature

ERNEST V. LINEK
Typed/Printed Name of Applicant or Representative

29822
Registration Number, if applicable

This collection of information is required by 37 CFR 1.133. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.